

**ABSTRACT**

In a resonant motor system, an electrical motor having a stator with one or more windings, a rotor which may or may not be wound, and an air gap between the stator and the rotor for storing magnetic energy such that the motor exhibits a definite electrical inductance deployed with a drive combination including a capacitance connected in series with the inductance of the motor to form an LCR circuit therewith. Phased provision of DC power to the LCR circuit causes the circuit to oscillate, which excites the motor. The DC power is provided in synchronism with the rotation of the rotor in order to maximize torque produced by the motor.